

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-20 (Cancelled):

Claim 21 (New): A sheet extrudate comprising at least one surface that has self-cleaning properties, made by a process comprising

1) impressing microparticles into at least one surface of a melt of a polymer extruded sheet to securely anchor at least one layer of the microparticles into the at least one surface, and

2) hydrophobicizing the microparticles securely anchored into the at least one surface of the extruded sheet to form the sheet extrudate comprising at least one surface that has self-cleaning properties,

wherein the microparticles in 1) comprise microparticles that do not have hydrophobic properties before the hydrophobicizing is conducted,

wherein the microparticles have, from primary particles, combined to give agglomerates or aggregates whose size is from 0.2 μm to 100 μm , that form elevations having an average height of from 20 nm to 25 μm and an average separation of from 20 nm to 25 μm ,

wherein the microparticles have been directly anchored in the within the at least one surface of the extruded sheet by the impressing and have not been linked via a carrier material,

wherein more than 50% of the microparticles, after impressing, have been anchored with from 10% to 90% of their average particle diameter within the at least one surface, and

wherein the more than 50% of the microparticles that after impressing have been anchored with from 10% to 90% of their average diameter within the at least one surface comprise

microparticles that do not have hydrophobic properties before the hydrophobicizing is conducted.

Claim 22 (New): The sheet extrudate of claim 21, wherein the hydrophobicizing comprises treating the microparticles with alkylsilanes, fluoroalkylsilanes, disilazanes, or combinations thereof.

Claim 23 (New): The sheet extrudate of claim 22, wherein the microparticles are treated with perfluoroalkylsilanes.

Claim 24 (New): The sheet extrudate of claim 21, wherein the elevations have an average height of from 50 nm to 4 μm and/or an average separation of from 50 nm to 4 μm .

Claim 25 (New): The sheet extrudate of claim 21, wherein the extruded sheet of the sheet extrudate comprises a material selected from polycarbonates, polyoxymethylenes, polyacrylates, polymethacrylates, polyamides, polyvinyl chloride, polyethylenes, polypropylenes, aliphatic linear polyalkenes, branched polyalkenes, cyclic polyalkenes, polystyrenes, polyesters, polyacrylonitrile, polyalkylene terephthalates, and polyvinylidene fluoride, or comprises other polymers from polyisobutene, poly-4-methyl-1-pentene, and polynorbornene, in the form of homo- or copolymer, or else comprises a mixture of these.

Claim 26 (New): The sheet extrudate of claim 21, wherein the extruded sheet comprises at least one material selected from the group consisting of poly(ethylene), poly(propylene), polycarbonate, polyesters, and poly(vinylidene fluoride).

Claim 27 (New): The sheet extrudate of claim 21, wherein the microparticles have been anchored with from 20% to 50% of their average particle diameter within the at least one surface.

Claim 28 (New): The sheet extrudate of claim 21, wherein the microparticles comprise at least one selected from the group consisting of silicates, doped silicates, minerals, metal oxides, metal powders, silicas, pigments, and polymers, with the proviso that at least some of the microparticles comprise microparticles that do not have hydrophobic properties before the hydrophobicizing is conducted.

Claim 29 (New): The sheet extrudate of claim 21, wherein the impressing is conducted with a roller.

Claim 30 (New): A process for producing a sheet extrudate, the process comprising

1) impressing microparticles into at least one surface of a melt of a polymer extruded sheet to securely anchor at least one layer of microparticles into the at least one surface, and

2) hydrophobicizing the microparticles securely anchored into the at least one surface of the extruded sheet to form the sheet extrudate comprising at least one surface that has self-cleaning properties,

wherein the microparticles in 1) comprise microparticles that do not have hydrophobic properties before the hydrophobicizing is conducted,

wherein the microparticles have, from primary particles, combined to give agglomerates or aggregates whose size is from 0.2 μm to 100 μm , that form elevations having an average height of from 20 nm to 25 μm and an average separation of from 20 nm to 25 μm ,

wherein the microparticles have been directly anchored in the within the at least one surface of the extruded sheet by the impressing and have not been linked via a carrier material.

Claim 31 (New): The process of claim 30, wherein more than 50% of the microparticles in 1) are impressed only to the extent of 90% of their diameter into the at least one surface of the polymer extruded sheet.

Claim 32 (New): The process of claim 31, wherein the impressing is conducted by means of a roll.

Claim 33 (New): The process of claim 32, wherein prior to the impressing, the microparticles are applied to the surface of the roll.

Claim 34 (New): The process of claim 33, wherein prior to the impressing, the microparticles are sprayed onto the roll.

Claim 35 (New): The process of claim 30, comprising at least two rolls, wherein the microparticles are impressed into two surfaces of the polymer extruded sheet on two sides of the polymer extruded sheet.

Claim 36 (New): The process of claim 30, wherein the extruded sheet of the sheet extrudate comprises a material selected from polycarbonates, polyoxymethylenes, polyacrylates, polymethacrylates, polyamides, polyvinyl chloride, polyethylenes, polypropylenes, aliphatic linear polyalkenes, branched polyalkenes, cyclic polyalkenes, polystyrenes, polyesters, polyacrylonitrile, polyalkylene terephthalates, and polyvinylidene fluoride, or comprises other polymers from polyisobutene, poly-4-methyl-1-pentene, and polynorbornene, in the form of homo- or copolymer, or else comprises a mixture of these.

Claim 37 (New): The process of claim 30, wherein the extruded sheet comprises at least one material selected from the group consisting of poly(ethylene), poly(propylene), polycarbonate, polyesters, and poly(vinylidene fluoride).

Claim 38 (New): The process of claim 30, wherein the hydrophobicizing comprises treating the microparticles with alkylsilanes, fluoroalkylsilanes, disilazanes, or combinations thereof.

Claim 39 (New): The process of claim 30, wherein wherein the microparticles comprise at least one selected from the group consisting of silicates, doped silicates, minerals, metal oxides, metal powders, silicas, pigments, and polymers, with the proviso that at least some of the microparticles, so long as the microparticles comprise microparticles that do not have hydrophobic properties before the hydrophobicizing is conducted.

Claim 40 (New): A sheet extrudate, comprising an extruded sheet and microparticles directly anchored within at least one surface of the extruded sheet,

wherein the microparticles have, from primary particles, combined to give agglomerates or aggregates whose size is from 0.2 μm to 100 μm , that form elevations having an average height of from 20 nm to 25 μm and an average separation of from 20 nm to 25 μm ,

wherein more than 50% of the microparticles, after impressing, have been anchored with from 10% to 90% of their average particle diameter within the at least one surface, and wherein the embedded microparticles comprises microparticles where only the portion of the surface of the microparticles not embedded in the sheet extrudate are hydrophobicized.